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EXAMINER	
MILLS, DONALD L	
ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/775,346	YEMINI ET AL.	
	Examiner	Art Unit	
	Donald L. Mills	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-89* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-89* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/28/04;12/13/04;03/16/05*
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 10, 21-23, 29, 35-37, 43, 49-51, 57, 63, 64, 70, 76, 77, 83, and 89 are rejected under 35 U.S.C. 102(b) as being anticipated by Bosack (US 5,088,032).

Regarding claims 1, 21, 36, 49, 63, and 76, Bosack discloses a method and apparatus for routing communications among network computers, which comprises:

Each node is assigned a set of one or more coordinate labels, each representing a path comprising one or more links or other nodes (Note, the Examiner equates a node to a gateway. Referring to Figure 2, a gateway is initialized including a description (coordinate label) of each data link for the path from the source gateway to the destination gateway. See column 3, lines 66-67 and column 4, lines 3-9 and 25-30. Further, each gateway computes a metric composite, description, (coordinate label) to determine the desirability of the data paths to destination computers. See column 4, lines 31-33.)

Each coordinate label is unique to the Node to which it is assigned (Referring to Figure 2, by definition each description (coordinate label) is unique to each gateway. See column 4, lines 3-9.)

A path between a first Node and a second, non-adjacent Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node (Referring to Figure 2, paths between the gateway and destination gateways are compiled based on the description of each data link between the gateway and destination gateway. See column 5, lines 17-19.)

Said first Node is a gateway Node and said second Node is a destination Node (Referring to Figure 2, gateways and destination gateways.)

Data from a foreign network is received at said gateway Node and routed on said network to said destination Node (Referring to Figure 2, gateways, which by definition interconnect two networks where one could be considered foreign, such as, a land microwave network and a home network, such as, a satellite network for routing data between the gateway and destination gateway. See column 3, lines 32-40.)

Regarding claim 2, Bosack discloses *wherein said received data is routed to a closest Node of a plurality of mirror Nodes* (Referring to Figure 2, traffic is sent along a path with a lower metric (a closest Node) of the subsequent intermediate nodes. See column 5, lines 44-50.)

Regarding claim 3, Bosack discloses *where said gateway Node translates said data from said foreign network into a local packet* (Referring to Figure 2, gateways, by definition translates data packets between foreign and local networks.)

Regarding claim 4, Bosack discloses *where said local packet is a DART packet* (Referring to Figure 2, the Examiner interprets packets received by the gateway as DART packets.)

Regarding claims 10 and 64, Bosack discloses *where said data is a DART packet wrapped in a foreign packet, and where said Node unwraps said DART packet from said foreign packet* (Referring to 2, the Examiner interprets packets received by the gateway as DART packets, by definition a gateway translates data packets between local and foreign networks.)

Regarding claim 22, Bosack discloses *where said gateway Node translates said data into a foreign packet* (Referring to Figure 2, gateways, which by definition interconnect two networks where one could be considered foreign, such as, a land microwave network and a home network, such as, a satellite network for routing data between the gateway and destination. See column 3, lines 32-40.)

Regarding claim 23, Bosack discloses *where said foreign packet is a DART packet* (Referring to Figure 2, the Examiner interprets packets received by the gateway as DART packets.)

Regarding claims 29, 51, and 77, Bosack discloses *where said Node wraps a DART packet in a foreign packet to form said data* (Referring to Figure 2, the Examiner interprets packets received by the gateway as DART packets, by definition a gateway translates data packets between local and foreign networks.)

Regarding claims 35 and 89, Bosack discloses *where said transmission from said gateway Node into said foreign network is performed by a Link Label replacement* (Referring to Figure 2, a gateway is initialized including a description (coordinate label) of each data link which is different for each gateway. See column 3, lines 66-67 and column 4, lines 3-9.)

Regarding claim 37, Bosack discloses *unwrapping a foreign packet from said data to recover a DART packet* (Referring to Figure 2, the Examiner interprets packets received by the

gateway as DART packets, by definition a gateway translates data packets between local and foreign networks.)

Regarding claims 43 and 70, Bosack discloses *translating said data received from said foreign network into a DART packet* (Referring to Figure 2, the Examiner interprets packets received by the gateway as DART packets, by definition a gateway translates data packets between local and foreign networks.)

Regarding claim 50, Bosack discloses *where said transmission from said destination Node into said foreign network is performed by a Link Label replacement* (Referring to Figure 2, a gateway is initialized including a description (coordinate label) of each data link which is different for each gateway. See column 3, lines 66-67 and column 4, lines 3-9.)

Regarding claims 57 and 83, Bosack discloses *forming said data by translating a DART packet into a foreign packet* (Referring to Figure 2, the Examiner interprets packets received by the gateway as DART packets, by definition a gateway translates data packets between local and foreign networks.)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5-9, 11-20, 24-28, 30-34, 38-42, 44-48, 52-56, 58-62, 65-69, 71-75, 78-82, and 84-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosack (US 5,088,032).

Regarding claim 5 as explained in the rejection statement of claim 1, Bosack discloses all of the claim limitations of claim 1 (parent claim).

Bosack does not disclose *where said local packet is an IP packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an IP packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claim 6 as explained in the rejection statement of claim 1, Bosack discloses all of the claim limitations of claim 1 (parent claim).

Bosack does not disclose *where said local packet is an Appletalk packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an Appletalk packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claim 7 as explained in the rejection statement of claim 1, Bosack discloses all of the claim limitations of claim 1 (parent claim).

Bosack does not disclose *where said local packet is an Ethernet packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an Ethernet packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claim 8 as explained in the rejection statement of claim 1, Bosack discloses all of the claim limitations of claim 1 (parent claim).

Bosack does not disclose *where said local packet is a MPLS packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement a MPLS packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claim 9 as explained in the rejection statement of claim 1, Bosack discloses all of the claim limitations of claim 1 (parent claim).

Bosack does not disclose *where said local packet is an ATM packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an ATM packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 11, 24, 30, 38, 52, 65, 71, 78, and 84 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *where said foreign packet is an IP packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an IP packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 12, 25, 31, 39, 53, 66, 72, 79, and 87 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *where said foreign packet is an Appletalk packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an Appletalk packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 13, 26, 32, 40, 54, 67, 73, and 80 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *where said foreign packet is an Ethernet packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an Ethernet packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 14, 27, 33, 41, 55, 68, 74, 81, and 85 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *where said foreign packet is a MPLS packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an MPLS packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claim 15, 28, 34, 42, 56, 69, 75, 82, and 86 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *where said foreign packet is an ATM packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an ATM packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 16, 44, and 58 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *wherein said data received from said foreign network is an IP packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an IP packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 17, 45, and 59 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *wherein said data received from said foreign network is a MPLS packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement a MPLS packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 18, 46, and 60 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *wherein said data received from said foreign network is an ATM packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an ATM packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 19, 47, and 61 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *wherein said data received from said foreign network is an Appletalk packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an Appletalk packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Regarding claims 20, 48, and 62 as explained in the rejection statement of the parent claim; Bosack discloses all of the claim limitations of the parent claims.

Bosack does not disclose *wherein said data received from said foreign network is an Ethernet packet.*

Bosack teaches routing communications among network computers comprising gateways, which by definition interconnect two networks, such as, a land microwave network and a satellite network (See column 3, lines 32-40.)

It would have been obvious at the time the invention was made to implement an Ethernet packet based network in the system of Bosack. One of ordinary skill in the art would have been motivated to do so in order to conform to such a well-known standard.

Response to Arguments

5. Applicant's arguments filed March 7, 2005 have been fully considered but they are not persuasive.

Rejection Under 35 USC § 102

On page 19 of the remarks, regarding claim 1, the Applicant argues Bosack does not disclose *assigning each node a set of one or more coordinate labels, each representing a path comprising one or more links or other nodes.* The Examiner respectfully disagrees. Bosack discloses a gateway which includes a description (coordinate label) of each data link, not just the next-hop, for the path from the source gateway to the destination gateway (See column 3, lines 66-67 and column 4, lines 3-9 and 25-30.) Further, each gateway computes a metric composite, description, (coordinate label) to determine the desirability of the data paths to destination computers (See column 4, lines 31-33.) Therefore, Bosack discloses *assigning each node a set of one or more coordinate labels, each representing a path comprising one or more links or other nodes.* Note, should the claims be amended to further describe the coordinate label, as consistent with the Applicant's drawings and specification, the prior art rejection could be overcome.

On page 19 of the remarks, regarding claim 1, the Applicant argues Bosack does not disclose *each coordinate label is unique to the Node to which it is assigned.* The Examiner respectfully disagrees. Bosack discloses each description (coordinate label), by definition, is unique to each gateway (See column 4, lines 3-9.) Therefore, Bosack discloses *each coordinate label is unique to the Node to which it is assigned.*

On page 20 of the remarks, regarding claim 1, the Applicant argues Bosack does not disclose *a path between a first Node and a second, non-adjacent Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node.* The Examiner respectfully disagrees. Bosack discloses paths between the gateway and destination gateways are compiled based on the description of each

data link between the gateway and destination gateways (See column 5, lines 17-19.) Therefore, Bosack discloses *a path between a first Node and a second, non-adjacent Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node.*

Said first Node is a gateway Node and said second Node is a destination Node (Referring to Figure 2, gateways and destinations.)

On page 22 of the remarks, regarding claim 21, the Applicant argues Bosack does not disclose *a path between a first Node and a second, non-adjacent Node being determined from one of said coordinate labels assigned to said first Node and one of said coordinate labels assigned to said second Node.* The Examiner respectfully disagrees for the reasons stated above.

On page 23 of the remarks, regarding claims 36 and 49, the Applicant argues Bosack does not disclose *determining a path from said source Node to a said destination Node by combining one coordinate label of said source Node and one coordinate label of said destination Node.* The Examiner respectfully disagrees. The term "combining" is utilized very loosely, which provides many broad and reasonable interpretations. The Examiner interprets the metrics computed for each link and combined to determine the path from the source gateway to the destination gateway as logically equivalent to the claimed invention. Note, should the claims be amended to further describe the combination process, as consistent with the Applicant's drawings and specification, the prior art rejection could be overcome.

On page 24 of the remarks, regarding claims 63 and 76, the Applicant argues Bosack does not disclose *each coordinate label representing a complete path from said Node to a*

particular other, non adjacent Node of the network, each of said coordinate labels being unique to said Node. The Examiner respectfully disagrees for the same reasons stated above.

On page 25 of the remarks, regarding claims 2-20, 22-35, 37-48, 50-62, 64-75, and 77-89, the Applicant argues Bosack does not anticipate or render obvious each dependent claim in light of the arguments set forth above. The Examiner respectfully disagrees for the same reasons above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills

June 22, 2005

JOHN PEZZLO
PRIMARY EXAMINER